DOCUMENT RESUME

ED 249 772 FL 014 596

TITLE	Basic Principles for the Education of Language-Minority Students: An Overview. 1982 Edition.
INSTITUTION	California State Dept. of Education, Sacramento. Office of Bilingual Bicultural Education.
PUB DATE	82
NOTE	38p.; For related document, see FL 014 597.
AVAILABLE FROM	Bureau of Publications, California State Department of Education, P.O. Box 271, Sacramento, CA 95802 ($2.00, plus sales tax in California).
PUB TYPE	Guides - Non-Classroom Use (055)
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Academic Achievement; Educational Environment; *Educational Needs; *Educational Objectives; *Educational Strategies; Instructional Improvement; Language of Instruction; Language Proficiency; Language Research; *Limited English Speaking; *Minority Groups; Oral Language; *Second Language Learning; Social Status; Student Adjustment
IDENTIFIERS	California; Contextual Interaction Theory

ABSTRACT

Drawing on and extending the work presented in a companion volume, "Schooling and Language Minority Students: A Theoretical Framework," five principles are presented that represent an integration of recent empirical research in bilingualism, bilingual education, and second language acquisition to help policymakers and educators meet the educational needs of language minority students. In an introductory section, previous theoretical frameworks for language minority programs are reviewed and their deficiencies noted. In five subsequent sections, these principles and their applications for this group are discussed. The principles are that: (1) bilinguals' first and second language development is positively associated with academic achievement; (2) language proficiency is the ability to use language for both academic purposes and basic communication; (3) for language minority students the development of the primary language skills necessary to complete academic tasks forms the basis for similar proficiency in English; (4) acquisition of basic communicative competency in a second language is a function of comprehensible second language input and a supportive affective environment; and (5) the perceived status of students affects the interactions between teachers and students and among students, in turn affecting student outcomes. These principles provide the empirical support for the Contextual Interaction Theory of bilingual education, and the implications of this theory for the teaching of language minority students are examined in the remainder of the report. (MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED249772

FL
Cover #
Relay, Mrs Rep.

Basic Principles for the Education of Language-Minority Students: An Overview

1982 Edition

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

CALIFORNIA STATE DEPT OF ED

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

FLOH 596

CALIFORNIA STATE DEPARTMENT OF EDUCATION
Bill Honig, Superintendent of Public Instruction
Sacramento, 1983

Basic Principles for the Education of Language-Minority Students: An Overview

Prepared by
Office of Bilingual Bicultural Education

This document was published by the California State Department of Education, 721 Capitol Mall, Sacramento, CA 95814, and distributed under the provisions of the Library Distribution Act.

1982

Copies of this publication are available for $2, plus sales tax for California residents, from the Bureau of Publications, California State Department of Education, P.O. Box 271, Sacramento, CA 95802. A list of other publications which are available from the Department, *Selected Publications of the California State Department of Education*, may be obtained by writing to the same address.

Contents

	Page
Introduction	1
Educational Goals for Language Minority Students	1
Previous Theoretical Frameworks	2
Cultural Deficits	2
Language Mismatch	3
Contextual Interaction Theory	3
Principle One: The Linguistic Threshold	5
Principle Two: The Dimensions of Language Proficiency	7
Principle Three: The Common Underlying Proficiency	9
Principle Four: Second Language Acquisition	12
Principle Five: Student Status	15
Implications for Instruction	18
Primary Language Use	18
Second Language Acquisition	19
Student Status	21
Conclusion	23
Selected References	24

PREFACE

This document is written for teachers, teacher trainers, school administrators and others who are interested in improving the education of language minority students. It is designed as a companion piece to Schooling and Language Minority Students: A Theoretical Framework, and should be consulted before, during, and after reading that volume. The Theoretical Framework sets forth empirically based foundations and strategies for implementation based on the best information that research and practice can provide. The following document draws heavily on the concepts of the authors of the Theoretical Framework, and serves to summarize and illustrate the underlying principles found in that volume.

There are five principles presented in this document. Each should be viewed as a synthesis of current theory and research on different, but interrelated aspects of teaching and learning. As more research and theoretical analyses are done, the principles will be critiqued and refined.

We wish to acknowledge the competent assistance which we received from our colleagues during the writing of this document: Guillermo Lopez, Maria Ortiz, David P. Dolson, and Dennis R. Parker. We are grateful for their helpful suggestions, yet, we are responsible for any errors in our work.

Daniel D. Holt & Fred Tempes, Consultants
Office of Bilingual Bicultural Education

BASIC PRINCIPLES FOR THE EDUCATION OF LANGUAGE MINORITY STUDENTS

Introduction

Although limited-English-proficient children have always comprised a significant proportion of California's school-age population, in recent years the public schools have enrolled ever-increasing numbers of students who come to school speaking a language other than English (California State Department of Education, 1981a). Unfortunately, it is generally recognized that the American system of public education has not been as successful in meeting the education needs of language minority students as it has with the general student population.

Educational programs designed for language minority students have traditionally been based on a combination of legislative mandates and educators' best guesses as to effective treatments. Theoretical rationales for bilingual programs and other approaches, when the rationales have been put forth at all, have been offered either to justify stereotyped misconceptions of language minority students or to present conventional wisdom in the cloak of scientific respectability.

Fortunately, the situation is changing. A growing body of empirical research in the areas of bilingualism, bilingual education, and second language acquisition has provided the raw material from which an educational theory that explains existing evidence and predicts future outcomes can now be derived. Although the theoretical framework to be described here is based on the efforts of many researchers and educators, principal credit must be given to the insightful work of the contributors to Schooling and Language Minority Students: A Theoretical Framework, developed by the Office of Bilingual Bicultural Education, California State Department of Education (1981b). Readers interested in a more in-depth discussion of the ideas presented in this publication are directed to the framework. Additionally, the reader is cautioned that, although the principles to be discussed in this publication represent an integrated theory, any theory is subject to refinement. As new evidence comes forth, the theoretical framework presented here will, no doubt, be subject to modification, expansion, and revision.

Educational Goals for Language Minority Students

For educators the principal benefit to be derived from an empirically based theory of education is the guidance such a theory can provide in judging the soundness of an educational program designed to meet certain objectives. Hence, before describing a theory for the education of language minority students, one must first agree upon program objectives.

Regardless of the instructional approach taken, parents, students, educators, legislators, and the general public agree that language minority students should (1) attain high levels of oral English proficiency; (2) achieve, to the best of their abilities, in academic areas, including reading, writing, and mathematics; and (3) experience positive psychosocial adjustment to life in a complex, multicultural society.

High levels of oral proficiency in English include the ability to speak and understand English as a native speaker does. The active and passive English vocabularies of language minority students should be in the normal range for native speakers of the same age. Although these students may speak with a slight accent, their speech should always be intelligible; and they should make grammatical errors no more frequently than do native speakers.

Academic achievement in the basic skills of reading, writing, and mathematics should be substantially equivalent to the achievement of native speakers. In other words, the average achievement of a group of language minority students who have received an appropriate education should not differ significantly from the average achievement of native speakers of English of the same age.

Positive psychosocial adjustment would be indicated by such factors as a positive identification with both the majority culture and the home culture, positive self-image, positive relationships with majority and other minority students, regular school attendance, a dropout rate no higher than that of the majority students, and, eventually, earning and employment levels equivalent to those found in the general population.

Before a theory of education that can aid educators to devise instructional approaches to meet these goals is described, previous theoretical perspectives on the education of language minority students are examined.

Previous Theoretical Frameworks

Cultural Deficits

For the first half of this century, public policy toward language minority students was tightly bound to general attitudes toward immigrant groups. The immigrant flow to the United States, which had historically been northwestern European in origin, had begun around 1880 to include increasing numbers of Asians and southern and eastern Europeans. Poorer and less well educated, these new immigrants were seen by previous immigrant groups as culturally and intellectually inferior, and discriminatory immigration policies were imposed to limit the increasing tide of the so-called undesirable newcomers.

Educational policy regarding the new arrivals was predictable. Because cultural and linguistic differences were viewed as deficits, the role of the schools would be to eradicate these deficits. In 1909 E. P. Cubberly, who later became Dean of the Stanford University School of Education, wrote that:

> . . . everywhere these people settle in groups or settlements, and . . . set up their national manners, customs, and observances. Our task is to break up those groups or settlements, to assimilate and amalgamate these people as part of our American race, and to implant in their children, as far as can be done, the Anglo-Saxon conception of righteousness, law and order, and our popular government, and to awaken in them a reverence for our democratic institutions and for those things in our national life which we as a people hold to be of abiding worth. (pp. 15-16)

The concomitant language policy of such an educational view dictated English as the only language worthy of use in the schools. As early as 1855 the California Legislature had passed a law requiring English-only instruction in the state's public schools; and, by 1923, 34 states had similar requirements (Estrada, 1979).

Although vestiges of the cultural deficit view of language minority students remain today, mid-century America began to accept the more tenable view of cultural differences as simply different approaches to the human task of living. Language policy began to shift accordingly.

Language Mismatch

The statement that "it is axiomatic that the best medium for teaching a child is his mother tongue" (UNESCO, 1953, p. 11) formed the theoretical basis for recent bilingual education programs in the United States. This "language mismatch" theory attributed the lack of academic success of language minority students to the discontinuity between their home language and the language of the schools. The educational remedy for underachievement, then, would be to match the language of the school to the language of the home.

If a theory of bilingual education is to be acceptable, however, it must be able to explain the available evidence. Research studies and evaluation reports of early-immersion French language programs in Canada contradict the language mismatch theory. In these programs monolingual English-speaking students receive almost all their instruction, including their initial reading instruction, in French. Despite this deliberate home-school language mismatch, the Canadian immersion program participants have done as well as or better than monolingually schooled control groups on measures of English language development and academic achievement after four to six years of treatment (Swain and Lapkin, 1981; Genesee, 1979).

Contextual Interaction Theory

Because the findings of the Canadian immersion programs challenged the basic premise of the mismatch theory of bilingual education, and in the face of pressure to develop English-only programs for language minority students in the United States, educators were forced to reexamine their earlier position. The result of this reexamination identified factors in the society, such as relative linguistic and social status, as crucial in determining language choice and predicting outcomes for bilingual education programs. Richard Tucker (1977) most clearly illustrates this view:

> In situations where the home language is denigrated by the community at large, where many teachers are not members of the same ethnic group as the students and are insensitive to their values and traditions, where there does not exist a pressure within the home to encourage literacy and language maintenance, and where universal primary education is not a reality, it would seem desirable to introduce children to schooling in their vernacular language. For example, the Mexican-American child in many, but not necessarily all communities . . . would . . . probably be encouraged to develop his very

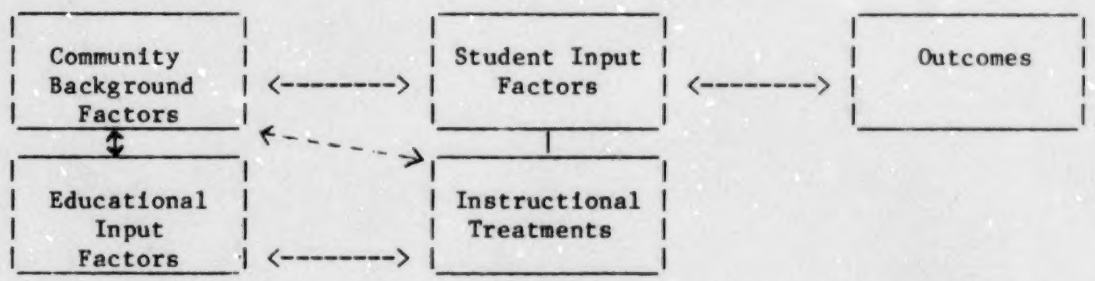
fullest potential in such a bilingual program. Conversely, in settings where the home language is highly valued, where parents do actively encourage literacy, and where it is "known" that the children will succeed, it would seem fully appropriate to begin schooling in the second language. (pp. 39-40)

From this perspective one would judge the appropriateness of an education treatment by examining the interaction between that treatment and factors existent in the larger society. However, there are numerous examples of individual language minority students who have succeeded in school despite an instructional program that would be deemed inappropriate to the societal context (e.g., Rodriguez, 1982).

The Contextual Interaction Theory resolves this contradiction by clarifying the relationship between certain student factors and educational treatments. These relationships are most easily examined in the context of an interaction model of educational variables and outcomes (Figure 1).

FIGURE 1

The Interaction Model for Language Minority Students



Adapted From J. Cummins, "Linguistic Interdependence and the Educational Development of Bilingual Children," Review of Educational Research, Vol. 49, Spring, 1979b.

In this model, community background factors, such as language use patterns in the home and community attitudes towards the student's home language (L_1) and second language (L_2) contribute to student input factors which the child brings to the educational setting. These student input factors, such as L_1 and L_2 proficiency, self-esteem, levels of academic achievement, and motivation to acquire L_2 and maintain L_1, are in constant interaction with instructional treatments, resulting in various cognitive and affective student outcomes. The instructional treatments are primarily determined by such educational input factors as fiscal resources available to the school; staff knowledge, skills, experience, expectations, and attitudes; and underlying educational assumptions or theories.

The theory to be described here, the Contextual Interaction Theory, rests on five empirically supported principles that describe how student input factors interact with instructional treatments to contribute to the desired goals of English language proficiency, academic achievement, and psychosocial adjustment.

Although the five principles are presented separately, they are interrelated; and each should be viewed as part of a whole. The eventual purpose of the discussion is to provide theoretical guidance to improve instructional programs and student outcomes.

Principle One: The Linguistic Threshold

Studies of the relationship between bilingualism and academic achievement and cognitive development carried out in the first half of the century almost invariably showed a negative relationship between bilingualism and intelligence and academic success (see Darcy, 1953, for a review). However, more recent studies have often shown cognitive and academic benefits associated with bilingualism (Duncan and DeAvila, 1979; Kessler and Quinn, 1980; Development Associates, 1980; Bain and Yu, 1980; Swain and Lapkin, 1981). Although there has been a tendency to resolve this contradiction by citing the obvious methodological weaknesses of many of the earlier studies, a number of studies showing deficits associated with bilingualism meet most methodological challenges.

There is, in fact, a more reasonable resolution of the apparent contradiction. When the relative language proficiencies of the subjects in the various studies are examined, it can be seen that negative consequences are associated with what might be called "limited bilingualism" or less than native-like skills in either language. Finnish researcher Skutnabb-Kangas (1979) states that limited bilingualism is ". . . produced in a situation where many different factors coincide: minority children from working class homes are forced to accept instruction in the foreign, majority, middle class language, and their own language has low prestige, both in the society and in the school" (pp. 17-18). Although the author is referring to Finnish immigrant children in Sweden, one can easily see that limited bilingualism is a common occurrence in the United States as well.

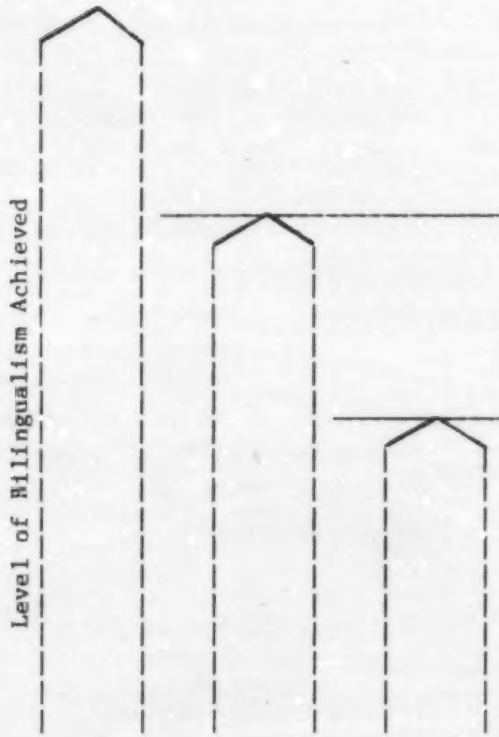
Subtractive bilingualism is the term used to describe the process by which an individual becomes a limited bilingual. In the subtractive process little effort is made by the individual or institutions like the school to maintain and develop the primary language while the second language is being acquired. Few school-age children catch up linguistically with native speakers of the second language. Many do not and pay the price of limited bilingualism.

Positive consequences of bilingualism, on the other hand, seem to accrue to individuals with native or near-native proficiency in two languages. Cummins (1981) suggests that ". . . those aspects of bilingualism which might positively influence cognitive growth are unlikely to come into effect until the child has attained a certain minimum or threshold level of proficiency in the second language." In fact, research has shown proficient bilinguals to be superior to comparable monolinguals in cognitive development (Duncan and DeAvila, 1979; Bain and Yu, 1980); academic achievement (Swain and Lapkin, 1981); and linguistic awareness (Cummins and Mulcahy, 1978).

The theoretical effects of various levels of relative language proficiency are illustrated in Figure 2 and lead to the first principle of the Contextual Interdependence Theory:

FIGURE 2

Cognitive/Academic Effects of Different Types of Bilingualism



Type of bilingualism	Cognitive/Academic effects	
A. Proficient bilingualism--high levels in both languages	Positive effects	
B. Partial bilingualism--native-like level in one of the languages	Neither positive nor negative effects	Higher threshold level of bilingual competence
C. Limited bilingualism--low level in both languages	Negative effects	Lower threshold level of bilingual competence

Adapted from P. Toukomaa and T. Skutnabb-Kangas, The Intensive Teaching of the Mother Tongue to Migrant Children of Pre-School Age and Children in the Lower Level of Comprehensive School. Helsinki, Finland: Finnish National Commission for UNESCO, 1977.

Principle One

FOR BILINGUAL STUDENTS THE DEGREE TO WHICH PROFICIENCIES IN BOTH L_1 AND L_2 ARE DEVELOPED IS POSITIVELY ASSOCIATED WITH ACADEMIC ACHIEVEMENT.

This principle implies that, if the academic goals of educational programs for language minority students are to be met, proficient bilingualism must be achieved. Some may argue that minority language development should be the responsibility of the home and not the school and that partial bilingualism (i.e., full English proficiency with perhaps conversational skills in the home language) is a more appropriate public policy. However, it seems apparent that, for the overwhelming majority of language minority students in the United States, the result of such a policy is limited bilingualism and educational failure.

Principle One requires an operational definition of language proficiency. What is meant by high levels of language proficiency, the prerequisite for gaining maximum benefits from schooling? Principle Two provides the operational definition.

Principle Two: The Dimensions of Language Proficiency

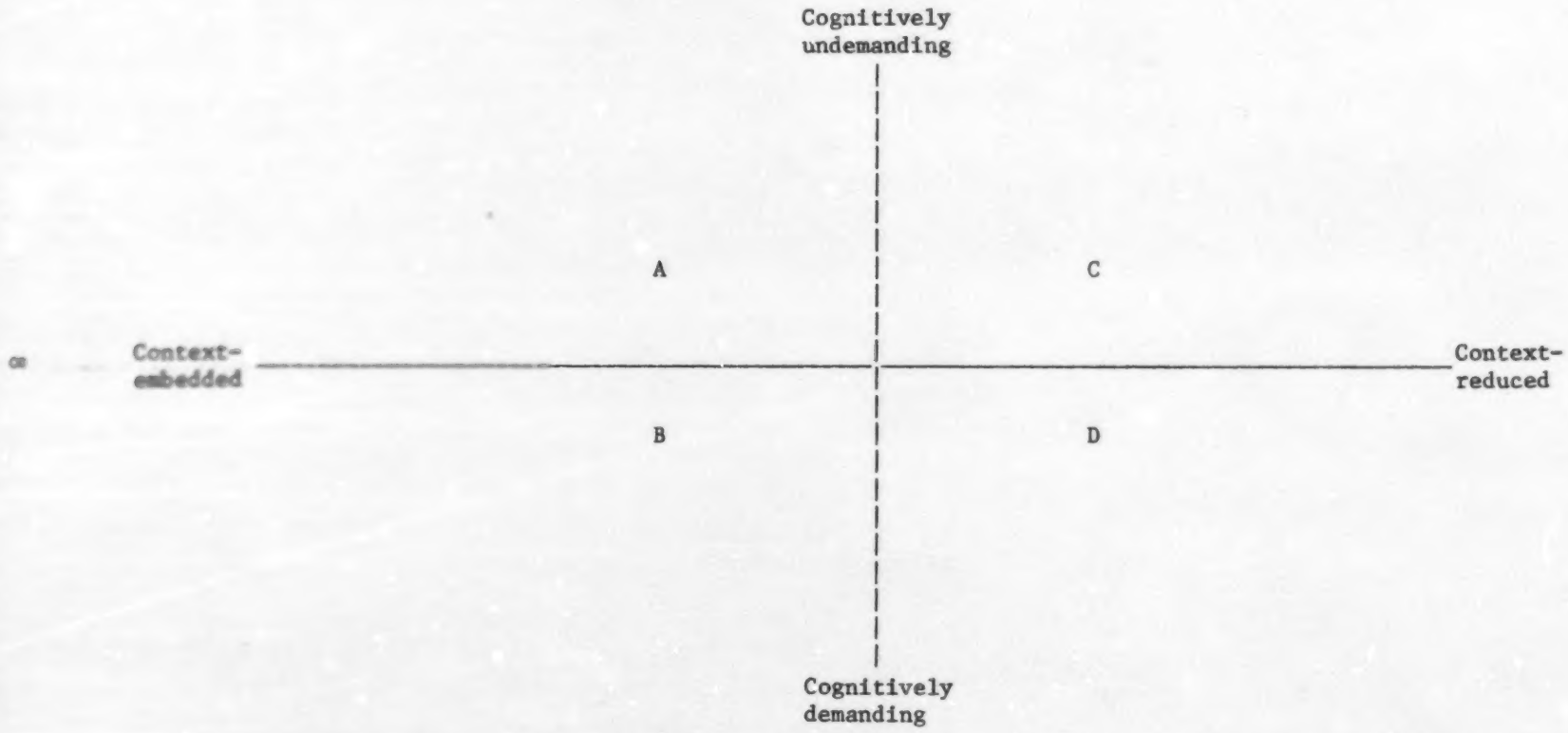
A model of language proficiency that explains the available evidence is put forth by Cummins (1981), who identifies at least two major dimensions of language proficiency--communicative language skills and academic language skills.

In Cummins' view all tasks requiring language skills may be placed on a grid formed by the intersection of two continua (Figure 3). The horizontal continuum in Figure 3 describes the amount of contextual support present in a task. At the context-embedded extreme of the continuum, meaning is actively negotiated between speaker and listener, and the communication is supported by a wide range of contextual clues. An example of a context-embedded communication task would be determining whose turn is next during a game at recess time. At the other extreme of the continuum, context is reduced; and few, if any, nonlinguistic or paralinguistic clues as to meaning are provided. An example of context-reduced communication might be the reading of a chapter in a history text.

The vertical continuum in Figure 3 relates to the cognitive demands of the communication task. An example of a cognitively undemanding task might be the experienced driver's reading of common traffic safety signs, an activity that has become so habitual as to be almost subconscious. At the other extreme, listening to a lecture in an unfamiliar field is very cognitively demanding.

FIGURE 3

Range of Contextual Support and Degree of Cognitive Involvement
in Communicative Activities



From J. Cummins, "The Role of Primary Language Development in Promoting Educational Success for Language Minority Students," in Schooling and Language Minority Students: A Theoretical Framework. Los Angeles: Evaluation, Dissemination, and Assessment Center, California State University, 1981.

Two important conclusions can be drawn from Cummins' model of language proficiency. First, all normal human beings acquire the language proficiency, in at least one language, necessary to complete context-embedded, cognitively undemanding tasks (quadrant A). Second, among monolinguals the ability to complete cognitively demanding tasks in context-reduced situations (quadrant D) varies greatly among the general population. The ability to complete such tasks seems based on one's inherent ability and amount of schooling.

Cummins' view of language proficiency leads to the statement of Principle Two:

Principle Two

LANGUAGE PROFICIENCY IS THE ABILITY TO USE LANGUAGE FOR BOTH ACADEMIC PURPOSES AND BASIC COMMUNICATIVE TASKS.

Principles one and two suggest that, to meet the established goals of the educational program, educators must aid language minority pupils to develop both communicative and academic language skills in English and in their primary language. Will the education of language minority students, therefore, require twice as much time as the education of monolingual English speakers? Principle Three speaks to that question.

Principle Three: The Common Underlying Proficiency

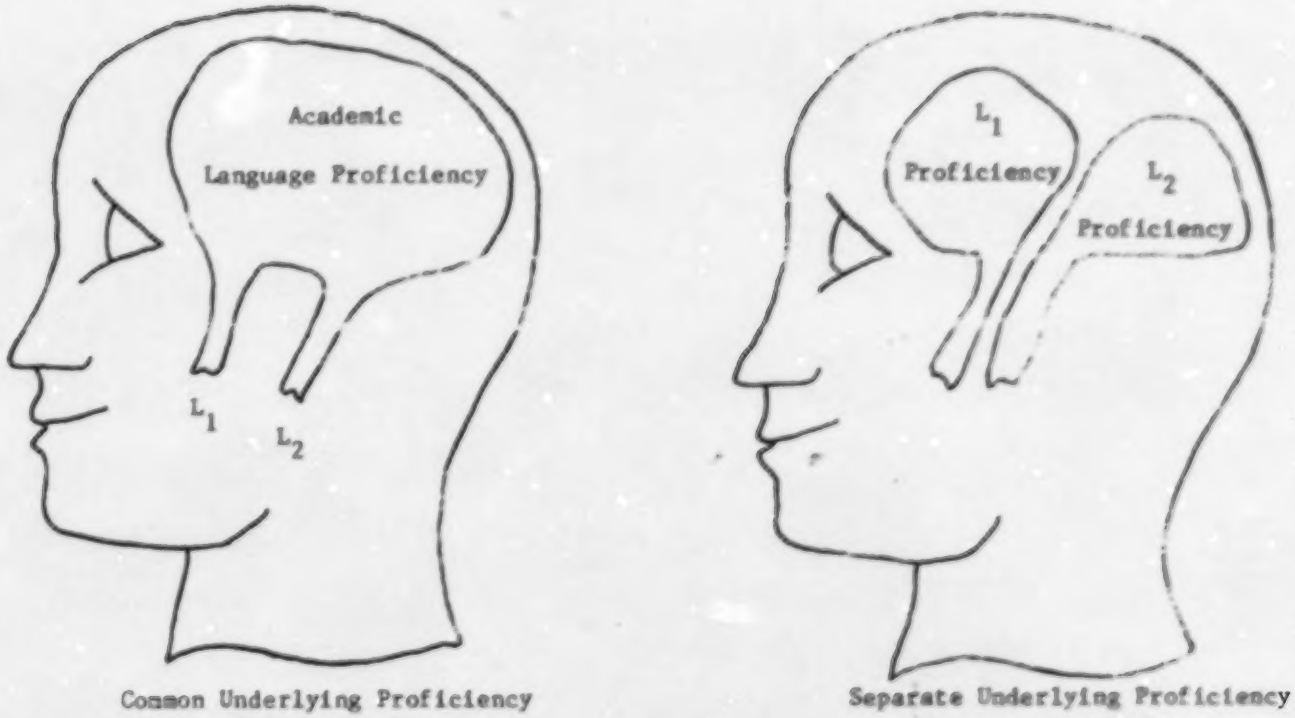
There are two prevalent views of how bilinguals process and store language (see Figure 4). One view holds that a bilingual's proficiencies in each language are developed independently and stored separately in the brain. Termed the Separate Underlying Proficiency model, this position is illustrated in Figure 4 by a head with two balloons, each balloon representing a separate language-specific proficiency. The practical implications of this model seem obvious; that is, efforts devoted to developing proficiency in one language have no effect on proficiency in the other language and, indeed, may have negative effects by competing for a limited brain capacity. If a limited amount of time and mental capacity is available, efforts should be directed at developing proficiency in the more educationally, socially, and economically useful of the two languages (e.g., English in the United States).

There is, however, a second view of bilingual proficiency as illustrated in Figure 4. In this view the bilingual's proficiency in managing the linguistic demands of the more cognitively demanding, context-reduced tasks is seen as interdependent across languages, not separate and totally specific to a given language. Development of this Common Underlying Proficiency through activities in one language is tantamount to developing the same proficiency in the other language. In other words, developing the ability to master cognitively demanding tasks in context-reduced environments in one language paves the way for the bilingual to perform similar tasks in the other language.

Which view is correct? Despite its intuitive appeal, little evidence supports the Separate Underlying Proficiency view of bilingual language

FIGURE 4

Two Views of Bilingualism



Common Underlying Proficiency

Separate Underlying Proficiency

From J. Cummins, "The Role of Primary Language Development in Promoting Educational Success for Language Minority Students," in Schooling and Language Minority Students: A Theoretical Framework. Los Angeles: Evaluation, Dissemination, and Assessment Center, California State University, 1981.

BEST COPY AVAILABLE

proficiency; but ample evidence supports the Common Underlying Proficiency model. For example, studies examining the relationship between a bilingual's academic skills in the primary language and second language typically find correlations in the .60 to .80 range (Cummins, 1979a; Lapkin and Swain, 1977; Development Associates, 1980). In other words, in a given group of bilinguals, those who read best in language X will probably read best in language Y. Conversely, the poorer readers in language X will be the poorer readers in language Y. If little or no relationship exists between academic language proficiency in a first and second language, as the Separate Underlying Proficiency model proposes, then the reported correlations would cluster around .00.

Additionally, studies comparing the age on arrival and the rate of second language skills development invariably show that, in dealing with the more cognitively demanding, context-reduced skills (e.g., reading, vocabulary acquisition, expository writing), older learners progress faster than do younger learners (see Izzo, 1981, for a review). Although this finding seems to contradict the conventional belief that younger learners have a uniform advantage over older learners in second language acquisition, the finding makes sense when one considers that older learners, through experience in and out of school, have more highly developed academic language skills in their first language than do younger learners. Older learners are able to express this well-developed Common Underlying Proficiency in a second language as soon as they acquire some of the basic communicative skills of that language.

A third source of evidence supporting the notion of a Common Underlying Proficiency comes from evaluations of bilingual education programs. Although early efforts to evaluate such programs frequently suffered methodological flaws, in recent years a body of acceptable evaluation studies has developed showing positive English language outcomes in bilingual programs which emphasize the development of primary language skills (Rosier and Holm, 1980; Evaluation Associates, 1979; Egan and Goldsmith, 1981). Although students in these bilingual programs received much less instruction in English than did comparison students, they outperformed the comparison students on measures of English proficiency, a finding which may be attributed to the development of the Common Underlying Proficiency through the vehicle of the primary language.

Acceptance of the Common Underlying Proficiency view of bilingualism leads to the statement of the third principle of the Contextual Interaction Theory:

Principle Three

FOR LANGUAGE MINORITY STUDENTS THE DEVELOPMENT OF THE PRIMARY LANGUAGE SKILLS NECESSARY TO COMPLETE ACADEMIC TASKS FORMS THE BASIS FOR SIMILAR PROFICIENCY IN ENGLISH.

The importance of Principal Three cannot be overemphasized. A concerted effort to develop the L_1 academic language skills of language minority students enhances their eventual ability to succeed in English-only instruction and diminishes the chances that students will suffer the negative consequence of limited bilingualism.

Principles one, two, and three are most related to the program goal of academic achievement. The fourth principle of the Contextual Interaction Theory answers the question, How do students best develop basic communicative proficiency in a second language?

Principle Four: Second Language Acquisition

The literature on second language development identifies two processes by which an individual might develop basic communicative competency in a second language--learning and acquisition (Krashen, 1981; Stevick, 1980). When learning a language, students consciously attempt to know the language, to be able to describe the rules governing the use of the language, to commit those rules to memory, and to apply them in order to generate grammatically correct utterances. Approaches that emphasize language learning are frequently organized around the sequential presentation, by a teacher, of grammatical structures. It is anticipated that students will learn one structure before proceeding on to the next and that, over time, students will have learned enough structures to communicate. Examples of grammar-based learning approaches include audiolingual, cognitive code, and grammar translation.

Second language acquisition, on the other hand, is a more subconscious process similar to the natural process of acquiring one's first language. People who have acquired a second language often report that they picked up the language in another country or in the home. Although quite fluent in the language, they are often unable to describe the rules that govern the use of the language. Second language development approaches that depend primarily upon the acquisition process focus on the successful communication of messages. During the acquisition process, grammatical accuracy is of secondary importance to making oneself understood and comprehending messages in the new language.

In planning an educational program for language minority students, one is faced with a dilemma. Which approach is best? A grammar-based approach that emphasizes learning? A communicative approach that depends on acquisition? A combination of the two? Current research suggests that, for the development of basic communicative skills, a communicative-based approach based on contemporary theory in second language acquisition is the most efficient and effective.

Acquiring a second language is dependent upon input or the raw data that the brain will process in order to generate utterances. As with a child acquiring a first language, second language acquirers need sufficient understandable linguistic input so that they can begin to make sense of the language. Krashen (1981) uses the term comprehensible input to describe the type of linguistic data required for second language acquisition.

For input to be comprehensible to the second language acquirer, it must have several characteristics. First, it must contain language (structures and lexical items) already known to the student together with some language not yet acquired. This new language can be understood through context (e.g., situation, concrete referents); paralinguistic clues (e.g., gestures, facial expressions); linguistic modifications (e.g., intonation, repetition, paraphrasing, syntactic and lexical simplification, clear articulation, reduction in rate of speech); and use of students' knowledge of the topic.

The student's ability to comprehend the new input will be enhanced by a second characteristic of comprehensible input (i.e., meaningful content). It is not sufficient that input focus on messages rather than form. For maximum comprehensibility of the input, the messages must be intrinsically interesting to the students so that the students are encouraged to persist in negotiating meaning. Stevick (1980) suggests that content becomes meaningful when it triggers the student's imagination and when it is explored in interaction with other students.

A third characteristic of comprehensible input is that it need not be grammatically sequenced. Although we know that students tend to acquire the structures of English in a predictable order (Bailey, Madden, and Krashen, 1974; Dulay and Burt, 1974; Krashen, 1981), the focus on meaningful messages communicated in an understandable manner will ensure that the appropriate grammatical structures are included in the comprehensible input.

Providing students comprehensible second language input is not sufficient, however, for language acquisition to take place. For optimum acquisition to occur, the raw material of language (comprehensible input) must reach and be processed in the brain's language acquisition device. A number of affective factors, termed the affective filter (Dulay and Burt, 1977), may limit the amount of comprehensible input available for processing and impede or facilitate the students' production of language. Such affective factors as low anxiety (Stevick, 1976), positive motivation (Gardner and Lambert, 1972), and self-confidence (Krashen, 1981; Wong-Fillmore, 1979) have been shown to be positively associated with second language acquisition. Conversely, when students are anxious in the second language classroom, are not motivated to speak the new language, and lack self-confidence and self-esteem, acquisition will be impaired. Instructors need to consider carefully affective factors in organizing lessons, diagnosing and grouping students, and generally responding to their second language needs.

The previous discussion, illustrated by Figure 5, leads to the fourth principle of the Contextual Interdependence Theory:

Principle Four

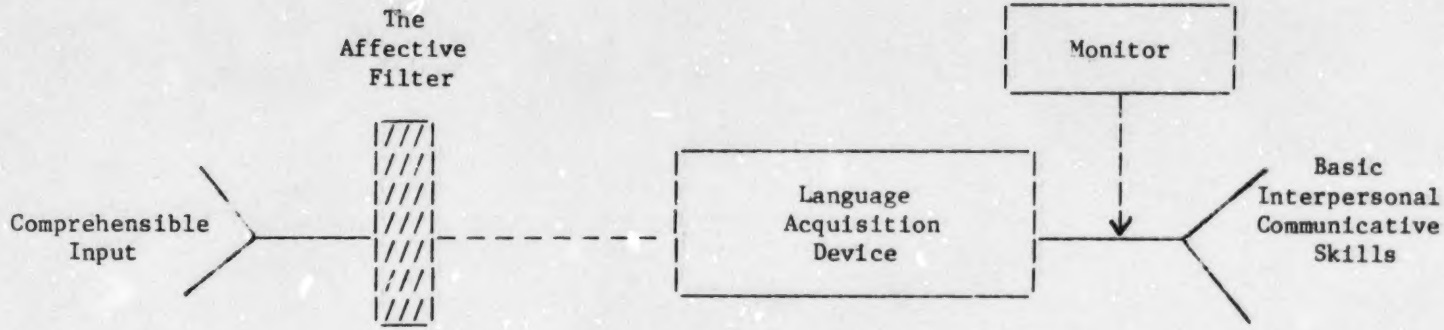
ACQUISITION OF BASIC COMMUNICATIVE COMPETENCY IN A SECOND LANGUAGE IS A FUNCTION OF COMPREHENSIBLE SECOND LANGUAGE INPUT AND A SUPPORTIVE AFFECTIVE ENVIRONMENT.

It should be noted that Principle Four does not eliminate the need for second language learning activities. There is a place for such activities in a bilingual education program, especially in assisting students to use the second language appropriately in the completion of the more cognitively demanding tasks in context-reduced situations.

The place of learning activities depends on the age, linguistic development, and individual needs of the student. In both diagnosing and planning lessons for students, instructors will need to have a clear understanding of how learning and acquisition interact in the student's processing and producing of the second language.

FIGURE 5

Second Language Acquisition Model



Adapted from S. Krashen, "Bilingual Education and Second Language Acquisition Theory," in Schooling and Language Minority Students: A Theoretical Framework. Los Angeles: Evaluation, Dissemination, and Assessment Center, California State University, 1981.

The Interaction Model diagrammed in Figure 1 suggests that educational outcomes are the result of the interaction of student input factors, community background factors, educational input factors, and instructional treatments. Principles one through four illustrate the relationships between language proficiency and academic achievement; they suggest how instructional treatments, by promoting high levels of proficiency in L_1 and L_2, can achieve desired outcomes. To be complete, however, a theoretical framework must take into account the fact that language minority students, even when they live in ethnically isolated communities, attend schools that reflect majority culture attitudes, beliefs, and values. Principle Five describes the possible effects of such schooling on language minority students.

Principle Five: Student Status

One possible explanation of why certain linguistically and ethnically identifiable groups of students tend to achieve at lower levels than do other students is that the low achievers are treated differently in schools by teachers, peers, and others.

Numerous studies reveal differences in student-teacher interaction. In their study of teacher interaction with children for whom high and low expectations were held, Good and Brophy (1971) found that first-grade children perceived as low achievers received fewer reading turns in reading groups, fewer opportunities to answer questions, and fewer opportunities to recite. In addition, they were less likely to call out answers. Children perceived by the teacher as high achievers received more praise and less criticism than did the perceived low achievers. Similarly, Kerman et al. (1980) observed the interactions of hundreds of teachers with perceived high and low achievers. They found that the teachers used positive interactions more frequently with the perceived high achievers than with the perceived low achievers.

Although the studies cited previously refer to student-teacher interactions in general, minority students are frequently the victims of such differential treatment. Classroom observations conducted by the U.S. Commission on Civil Rights (1973) revealed that Mexican-American students experienced more interactions with the teacher than did majority students in only two areas--giving directions and criticizing. In all positive categories the majority students experienced more interaction. For example, majority children were praised or encouraged 36 percent more often than Mexican Americans were; and the contributions of majority pupils were used or built upon 40 percent more frequently than were the contributions of Mexican-American students.

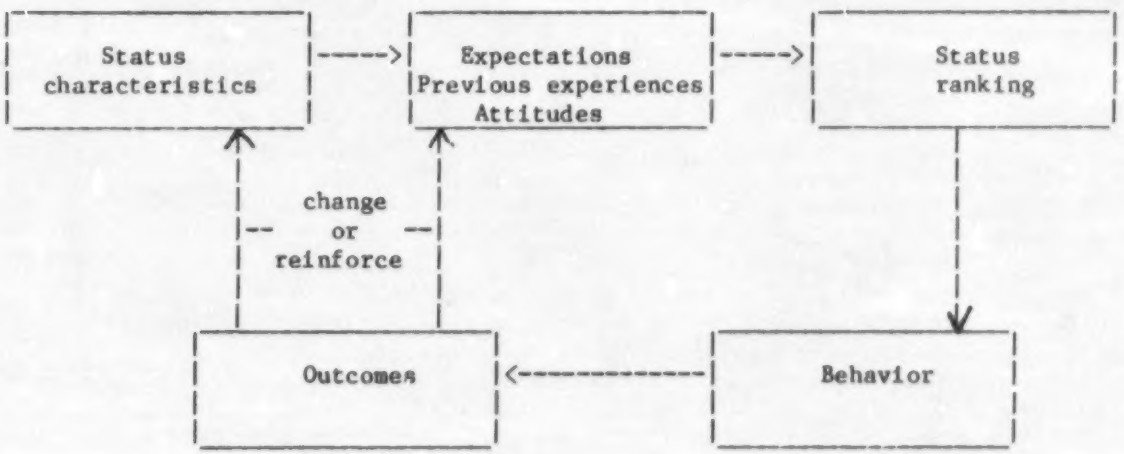
Even within a group of minority children, teachers evidently interact differently with students. Rist (1970) observed the same group of black children through kindergarten, first, and second grades. He found that, within the first few days of kindergarten, an identifiable group of children was continually being called on to "show and tell," read aloud, lead the class, and so on. Throughout the three years the same group of children enjoyed the preponderance of classroom verbal interactions with the teachers.

What is the basis for the different treatment received by the students in these studies? A careful examination of studies conducted in this area reveals

that teachers (as well as other students) tend to interact with students according to perceived status rankings. How status ranking operates and how it affects student outcomes are illustrated in Figure 6.

People's expectations of themselves and others are based in part on status characteristics such as age, language, achievement, race, and so on. People vary in terms of what characteristics they use for attributing status. For example, in the studies by Good and Brophy and by Kerman, et al., cited previously, perceived achievement was used to rank students by status, whereas in the study by the U.S. Commission on Civil Rights study, ethnicity seemed the salient factor. Rist concluded in his study that the kindergarten teacher rank-ordered students on the basis of such characteristics as family income, personality type, neat and clean appearance, and verbalization in standard American English.

FIGURE 6



Once a student has been classified according to perceived status, he or she is treated in accordance with expectations held for individuals of that status. Individuals with perceived high status receive qualitatively and quantitatively different types of interactions. This differential treatment, of course, contributes to differential outcomes.

Status rankings and the behaviors associated with them seem, however, to be malleable. When Kerman trained teachers to use positive interactions equally with both perceived high and low achievers, all students--highs and lows--showed significant achievement gains. Such intervention appears to be beneficial in its immediate effect on student achievement. Further, it may also be expected that the positive behavior exhibited by previously low-ranked students may cause teachers to revise their status ranking of the students or to abandon completely a certain characteristic as a status ranking variable.

The achievement of language minority students is affected not only by the status perceptions of their teachers but also by the status perception of their peers. St. John and Lewis (1975) found that peer group popularity among black and white sixth grade students was based on congruity of sex, high

achievement, social class, length of contact, and residential proximity. When other status characteristics were controlled, achievement played the largest part in cross-racial popularity. It is notable that the students' classroom performance showed a stronger relationship with popularity than did achievement test scores. St. John and Lewis suggest that perhaps the public nature of classroom performance allows students to identify high achievers.

Race also seems to be a salient factor affecting interactions among students. Cohen (1975) reported that white students consistently made more contributions and influenced outcomes more often in learning tasks when white students interacted with black students. This pattern predominated even though the two groups were matched in every respect except race: socioeconomic status, height, attitude toward school, and so on. Cohen's study reveals how the status ranking process affected the students' respective performances; that is, the white students took charge and the black students deferred, in spite of their similarities in other respects. Cohen suggests that, given certain conditions, students' expectations of each other can contaminate new situations so that the prestige ranking processes of the larger society are replicated.

Individual competition seems to promote status ranking along traditional lines. Slavin (1981b) reported in two studies that students who worked in traditional, competitive situations developed fewer cross-racial friendships in comparison with students who worked in groups. In looking at interactions among limited and fluent English speakers, Cohen, DeAvila, and Intili (1981) found that the gains experienced by all students in mathematics and language skills appeared to be linked in part to the students' talking and working together, using each other as resources. Thus, the type and quality of the interactions among students would seem to be critical elements in overcoming traditional status ranking tendencies and establishing constructive relationships.

Allowing only unplanned or incidental contact between majority and minority students may only reinforce negative expectations. Allport (1954) proposes a way in which contacts between minority and majority students can be organized so that the achievement of both groups can be maximized. He suggests that, when minority and majority students work interdependently on tasks with common objectives, student expectations and attitudes toward each other become more positive. Allport also points out that the effect of these contacts will be greatly enhanced if the contacts are supported by teachers and other authority figures at school.

Other researchers have found evidence to support Allport's basic premises. Cohen (1975), Damico et al. (1981), and Slaven (1981a) have shown that educational input factors and instructional treatments which explicitly promote positive interaction between minority and majority students result in positive outcomes in terms of an increased number of cross-racial friendships and greater self-esteem and academic achievement.

On the basis of this theoretical and emperical support, Principle Five can be stated to support further the Contextual Interaction Theory:

Principle Five

THE PERCEIVED STATUS OF STUDENTS AFFECTS THE INTERACTIONS BETWEEN TEACHERS AND STUDENTS AND AMONG THE STUDENTS THEMSELVES. IN TURN, STUDENT OUTCOMES ARE AFFECTED.

This principle suggests that interactions among minority students, majority students, and authority figures in the school affect educational outcomes for all students. By creating a supportive environment based on Principle Five, teachers and administrators will be facilitating the language minority students' development of skills in a manner consistent with principles one through four.

Implications for Instruction

A theoretical framework for bilingual education is most useful if it can serve as a guide for program implementation. This section describes some of the programmatic implications of the five principles of the Contextual Interaction Theory. The discussion is organized in three parts to address the implications of the theory for primary language use, second language acquisition, and student status.

Primary Language Use

The first three principles stress the importance of primary language development. Principle One indicates that, for the negative effects of limited bilingualism to be avoided, language-minority students should be aided to attain high levels of language proficiency in both languages. Principle Two reminds us that language proficiency must be defined to include academic language proficiency as well as basic communicative competency. And Principle Three points out that academic language proficiency is not language-specific, so that adequate development of academic language proficiency in the primary language forms the basis for similar levels of proficiency in English.

Available research indicates that, for language minority students to achieve high levels of primary language proficiency, they must receive substantial amounts of instruction in and through that language, at least until they are able to achieve at age level norms on English measures of academic skills. Community background factors, such as the extent to which and the manner in which the primary language is used outside the school, should be considered when determining the amount of time to be allocated to primary language development. It is unlikely, however, that successful programs will devote less than 70 percent of the instructional day to the primary language in kindergarten, 50 percent in grades one through three, and 25 percent in grades four through six (Evaluation Associates, 1971; Legarreta, 1979, 1981; Rosier and Holm, 1980; Skutnabb-Kangas, 1979). Language minority students should receive their initial reading instruction in the primary language, with English reading introduced after literacy skills are well established (Chu-Chang, 1979; Cooley, 1979;

Cummins, 1980; Cziko, 1978; Dank and McEachern, 1979; Fischer and Cabello, 1978; Genesee, 1979; Legarreta, 1979; Modiano, 1974). Other subject areas, especially those in which the content is cognitively demanding and the presentation provides little contextual support, should also be taught in the primary language.

Such an instructional program would, of course, require sufficient primary language materials. The school should provide an articulated L_1 reading program across the grades, with textbooks and supplementary materials for all students. The library should be well stocked with books in the primary language so that students can use their newly acquired skills for both functional and recreational reading (Rosier and Holm, 1980; Santiago and de Guzman, 1977; Thonis, 1976, 1981).

The instructional program requires a sufficient number of teachers who possess native or near native proficiency in the primary language. In addition to their linguistic skills, the teachers should be trained in primary language development, especially reading methodologies associated with the primary language (Legarreta, 1981; Merino, Politzer, and Ramirez, 1979; Penaloza-Stromquist, 1980; Rosier and Holm, 1980). The teachers should avoid mixing English and the primary language during instruction. Research has shown that the use of approaches which mix languages, such as the concurrent approach, are associated with negative program outcomes (Dulay and Burt, 1978; Legarreta, 1979, 1981; Baker and de Kanter, 1981). In addition, the teachers should encourage linguistic self-confidence and appreciation in their students by acceptance of regional and nonstandard varieties of the primary language (Legarreta, 1981).

In summary the major implications of principles one through three for instruction are as follows:

- Students are provided substantial amounts of instruction in and through L_1.
- Initial reading and other cognitively demanding subjects are taught through L_1.
- Sufficient texts and supplementary materials in L_1 are available.
- A sufficient number of well-trained teachers with high levels of L_1 proficiency are available to provide instruction.
- Teachers avoid mixing English and L_1 during instruction.
- Teachers accept regional and nonstandard varieties of L_1.

Second Language Acquisition

Concomitant with the development of academic language proficiency in the primary language, Principle Four implies that, when students are given sufficient exposure to comprehensible second language input in a positive affective environment, they will develop basic communicative competency in English (Krashen, 1981). Again, the extent to which the school must provide

comprehensive English input depends on language use patterns in the community. Students may receive large doses of English input on the playground, in the neighborhood, and through the English language media. Nonetheless, it is unlikely that, where there are concentrations of language minority students, program planners can depend on the environment alone to provide sufficient L_2 input for reasonably rapid acquisition to occur. In fact, in some communities the school may be the major source of L_2 input.

Activities designed to assist a student's second language acquisition must have all the characteristics of comprehensible input in a positive affective environment described in the discussion of Principle Four. Bilingual programs in the United States have typically allocated a portion of the instructional day for English as a second language (ESL). An ESL class can be an important source of comprehensible English input in the early stages of acquisition, especially if a communicative rather than a grammar-based approach is used (Terrell, 1981).

However, ESL classes need not be the only vehicle for providing second language input. Subject-matter classes, if properly selected and organized, can be a rich source of input for language minority students. Subject-matter classes that lend themselves to second language acquisition are those in which the instruction may be contextualized and the cognitive demands are low to moderate. For example, in the early stages of acquisition, art, music, or physical education might be selected for English language acquisition. Later, mathematics or science might be added. It is important to point out that, in subject-matter classes designated for second language acquisition, L_2 acquirers are not mixed with native speakers. The reason for this temporary linguistic separation is simple. When second language acquirers are mixed with native speakers, teachers usually direct their speech to the proficient-English speakers, using a native-speaker to native-speaker register. Such speech is not characterized by the linguistic modifications and contextual support necessary to make the communication comprehensible to L_2 acquirers.

Finally, in both ESL classes and subject-matter classes designed to provide second language input, teachers should allow students to respond in L_1, L_2, or a combination of the two and seldom overtly correct perceived L_2 errors. Although the teachers should seldom find it necessary to resort to explanations in L_1, students are allowed to use their primary language, especially in the early stages of acquisition, in order to maintain a focus on the content of the lesson and to lower the affective filter. Because, in a communicative approach, L_2 errors are viewed as developmental (as they are in L_1 acquisition), the prescription for remediating errors is not overt correction, but rather additional L_2 comprehensible input.

Teachers should organize second language lessons around the actual communication needs of students. Since complete mastery of a specific structure is not a prerequisite for the acquisition of subsequent structures (Dulay and Burt, 1974), lessons should be sequenced according to language functions or communicative content rather than grammatical structures or forms. As students become older with more academic language proficiency, lessons can be based in part on grammar forms. Ultimately, however, natural second language communicative proficiency will depend on exposure to communicative-based lessons and intense interaction with fluent English speakers (August, 1981; Canale and Swain, 1980; Johnson, 1980).

The following is a summary of the implications for instruction for Principle Four:

- Comprehensible second language input is provided through both ESL classes and subject-matter classes.
- When subject-matter classes are used to provide comprehensible second language input, subjects are selected in which the cognitive demands are low to moderate.
- When comprehensible second language input is provided through ESL classes, a communicative rather than grammar-based approach is used.
- ESL activities based on a communicative approach are characterized by at least the following: (a) Content is based on the students' communicative needs. (b) Students are permitted to respond in L_1 when necessary. (c) Focus is placed on language function or content rather than grammatical form. (d) Grammatical accuracy is promoted not by correcting errors overtly but by providing more comprehensible input. (e) Students are encouraged to respond spontaneously and creatively.
- Comprehensible second language input is provided through second language acquisition opportunities in which LEP students (a) are grouped together; and (b) interact with fluent-English-speaking peers.

Student Status

Principle Five emphasizes the importance of perceived student status in affecting language acquisition, academic achievement, and psychosocial adjustment. Programs designed to promote positive teacher-student and student-student interactions can be expected to lead to positive outcomes and resultant high-status attainment for language minority students. Kerman et al. (1980) identified specific types of teacher-student interactions which, when used in an equitable manner with both perceived high and low achievers, are likely to promote academic gains by both groups. The 15 interactions identified by Kerman et al include such things as listening attentively to students; providing students with response opportunities; giving individual assistance to students; talking to students about their personal interests and experiences; using expressions of courtesy with students; and so on.

There is also evidence that both minority and majority students can benefit from strategies which structure student interaction in positive ways. Some of the most promising strategies for organizing minority-majority student interaction can be found in Aronson (1978) and Slavin (1981a). These "cooperative learning" techniques create situations in which minority and majority students depend on each other to achieve common goals. The important ingredient in these techniques is support from teachers and administrators for rewarding students for cooperating with each other. Seeing each other's strengths and capacity for success, students have the opportunity to adjust what may have been low-status perceptions of each other and thereby develop positive relationships. When students are encouraged to help one another with their school work and are rewarded on the basis of how much their group achieves, versus how much they as

individuals achieve, they are likely to care how their classmates are doing academically and to encourage them to do their best. This helping environment creates an effective motivational system and promotes academic gains for both minority and majority students (Slavin, 1979).

Positive minority-majority student interaction can also promote second language acquisition. One of the principal factors involved in second language acquisition is the intensity and frequency of meaningful contact with fluent-English-speaking peers (Canale and Swain, 1980). Gardner and Lambert (1972) point out the importance of attitudes between speakers and acquirers of a language in affecting the success of the acquirers in mastering the language. Politzer (1981), in discussing Gardner and Lambert's research, suggests that attitudes and motivation ". . . affect not only the rapidity with which English is learned, they may in turn have a great deal to do with whether bilingual education or alternate treatments are more successful." Within the context of positive minority-majority student relationships, minority students' anxiety may be reduced, their self-confidence improved, and their integrative motivation enhanced in their task of learning the second language (Wong-Fillmore, 1976).

The minority languages of students at the school should also be offered in second language classes for majority students. In addition to the instrumental and integrative benefits to majority students, this practice will establish the value of the minority languages in the minds of minority students. The school should promote these second language classes as integral parts of the curriculum. Within a mutually rewarding structure, minority and majority students can assist each other in their second language development.

The school should also use the minority languages for noninstructional purposes. This could include use of the minority language in assemblies, sports events, music and art activities, and school announcements. Without overt promotion of their mother tongue, minority students in a majority context can feel that their language is unimportant or even inferior to English. This conclusion can have quite negative effects on native language development activities that are part of the instructional program. (Skutnabb-Kangas, 1979; Mackey, 1981).

Promoting high status attainment by both minority and majority students should become part of the instructional program as well as general school activities. The benefits in terms of language development, academic achievement, and psychosocial adjustment can be expected to be shared by both minority and majority students.

The implications for instruction for Principle Five are presented as follows:

- Teachers use positive interactions in an equitable manner with both minority and majority students.
- Minority and majority students are enrolled in content classes in which cooperative learning strategies are used.
- Majority students are enrolled in classes designed to develop second language proficiency in the minority language(s) represented in the school.

- Administrators, teachers, and students use the minority language(s) represented in the school for noninstructional purposes.

Conclusion

The Contextual Interaction Theory and the related implications for program implementation provide guidelines for improving the education of language minority students. Although there are, no doubt, factors other than those discussed here which should be considered in designing instruction for language minority pupils, developing programs based on theory and research, rather than on conventional wisdom, popular prejudices, and political pressure is an important first step in providing all children with an equal educational opportunity that takes into account their unique needs, skills, and abilities.

SELECTED REFERENCES

Allport, G. The Nature of Prejudice. Cambridge, Mass.: Addison-Wesley Publishing Co., Inc., 1954.

Aronson, E. The Jigsaw Classroom. Beverly Hills, Calif.: Sage Books, Inc., 1978.

August, D. L. "The Effects of Peer Tutoring on the Second Language of Hispanic Elementary School Children." Unpublished doctoral dissertation, Stanford University, 1981.

Bailey, N., C. Madden, and S. Krashen. "Is There a 'Natural Sequence' in Adult Second Language Learning?" Language Learning, No. 24, 1974.

Bain, B., and A. Yu. "Cognitive Consequences of Raising Children Bilingually: One Parent, One Language," Canadian Journal of Psychology, Vol. 34, No. 4, December, 1980.

Baker, K. A., and A. de Kanter. Effectiveness of Bilingual Education: A Review of the Literature. Washington, D. C.: Office of Planning, Budget, and Evaluation, 1981.

California State Department of Education. "Language Census Report--School Data:" (Form R-30LC). Sacramento: California State Department of Education, 1981a.

California State Department of Education. Schooling and Language Minority Children: A Theoretical Framework. Los Angeles: Evaluation, Dissemination, and Assessment Center, California State University, 1981b.

Canale, M., and M. Swain. "Theoretical Bases of Communicative Approaches to Second Language Teaching and Testing," Applied Linguistics, Vol. 1, No. 1, Spring, 1980.

Chu-Chang, M. "The Dependency Relation Between Oral Language and Reading in Bilingual Children." Unpublished doctoral dissertation, Boston University, 1979.

Cohen, E. G. "The Effects of Desegregation on Race Relations," Law and Contemporary Problems, Vol. 39, No. 2, 1975.

Cohen, E. G., E. DeAvila, and J. A. Intili. "Multi-Cultural Improvement of Cognitive Ability." Final report to the California State Department of Education. Stanford, Calif.: Stanford University, Center for Educational Research, 1981.

Cooley, H. "Multiple Measures of Second Language Acquisition Among Hispanic Children in a Bilingual Program." Unpublished doctoral dissertation, University of Wisconsin, 1979.

Cubberly, E. P. Changing Conceptions of Education. Boston: Houghton Mifflin Co., 1909.

Cummmins, J. "Cognitive/Academic Language Proficiency, Linguistic Interdependence, the Optimum Age Question, and Some Other Matters," Working Papers on Bilingualism, No. 19, October, 1979a.

Cummins, J. "Linguistic Interdependence and the Educational Development of Bilingual Children," Review of Educational Research, No. 49, Spring, 1979b.

Cummins, J. "The Entry and Exit Fallacy in Bilingual Education." Paper presented at the Ninth Annual Bilingual Bicultural Conference, Anaheim, California, April, 1980.

Cummins, J. "The Role of Primary Language Development in Promoting Educational Success for Language Minority Students," in Schooling and Language Minority Students: A Theoretical Framework. Los Angeles: Evaluation, Dissemination, and Assessment Center, California State University, 1981.

Cummins, J., and R. Mulcahy. "Orientation to Language in Ukranian-English Bilingual Children," Child Development, No. 49, Vol. 4, December, 1978.

Cziko, G. The Effects of Language Sequencing on the Development of Bilingual Reading Skills. Montreal, Canada: McGill University, 1978.

Damico, S. B., et al. "Effects of School Organizational Structure on Interracial Friendships in Middle Schools," Journal of Educational Research, Vol. 74, No. 6, 1981.

Dank, M., and W. McEachern. "A Psycholinguistic Description Comparing the Native Oral Reading Behavior of French Immersion Students with Traditional English Language Students," The Canadian Modern Language Review, No. 35, March, 1979.

Darcy, N. T. "A Review of the Literature on the Effects of Bilingualism upon the Measurement of Intelligence," Journal of Genetic Psychology, Vol. 82, 1953.

Development Associates. Evaluation of California's Educational Services to Limited and Non-English Speaking Students: Final Report, San Francisco, 1980.

Dulay, H., and M. Burt. "From Research to Method in Bilingual Education," in International Dimensions of Bilingual Education, J. Alatis, ed. Washington: Georgetown University, GURT, 1978.

Dulay, H., and M. Burt. "Natural Sequences in Child Second Language Acquisition," Language Learning, No. 24, 1974.

Dulay, H., and M. Burt. "Remarks on Creativity in Second Language Acquisition," in Viewpoints on English as a Second Language, M. Burt, H. Dulay, and M. Finnochiaro, eds. New York: Regents Publishing Co., Inc., 1977.

Duncan, S., and E. DeAvila. "Bilingualism and Cognition: Some Recent Findings," NABE Journal, Vol. 4, Fall, 1979.

Egan, L. A., and R. Goldsmith. "Bilingual Bicultural Education: The Colorado Success Story," in Monograph Series, Volume 2, Number 1, R. Garcia-Moya, ed. Boulder, Colo.: Center for Bilingual Multicultural Education Research and Service, 1981.

Estrada, L. J. "A Chronicle of the Political, Legislative,and Judicial Advances for Bilingual Education in California and the American Southwest," in Bilingual Education and Public Policy in the United States, R. V. Padilla, ed. Ypsilanti: Eastern Michigan University, 1979.

Evaluation Associates. Nestor School Bilingual Education Program Evaluation Research Report, San Diego, 1979.

Fischer, H., and B. Cabello. "Predicting Student Success Following Transition from Bilingual Programs." Paper presented at the Annual Meeting of the American Educational Research Association, Toronto, Canada, March, 1978.

Gardner, R. C., and W. Lambert. Attitude and Motivation in Second Language Learning. Rowley, Mass.: Newbury House Pubs., 1972.

Genesee, F. "Acquisition of Reading Skills in Immersion Programs," Foreign Language Annals, February, 1979.

Good, T. L., and J. E. Brophy. "Analyzing Classroom Interaction: A More Powerful Alternative," Educational Technology, Vol. 11, 1971.

Izzo, S. Second Language Learning: A Review of Related Studies. Rosslyn, Va.: National Clearing House for Bilingual Education, 1981.

Johnson, D. M. "Peer Tutoring, Social Interaction, and the Acquisition of English as a Second Language by Spanish-speaking Elementary School Children." Unpublished doctoral dissertation, Stanford University, 1980.

Kerman, S., T. Kimball, and M. Martin. Teacher Expectations and Student Achievement. Downey, Calif.: Office of the Los Angeles County Superintendent of Schools, 1980.

Kessler, C., and M. Quinn. "Bilingualism and Science Problem-Solving Ability," Bilingual Education Paper Series, Vol. 4, No. 1. Los Angeles: Evaluation, Dissemination, and Assessment Center, California State University, August, 1980.

Krashen, S. "Bilingual Education and Second Language Acquisition Theory," in Schooling and Language Minority Children: A Theoretical Framework. Los Angeles: Evaluation, Dissemination, and Assessment Center, California State University, 1981.

Lapkin, S., and M. Swain. "The Use of English and French Cloze Tests in a Bilingual Education Program Evaluation: Validity and Error Analysis," Language Learning, Vol. 27, No. 2, 1977.

Legarreta, D. "Effective Use of the Primary Language in the Classroom," in Schooling and Language Minority Students: A Theoretical Framework. Los Angeles: Evaluation, Dissemination, and Assessment Center, California State University, 1981.

Legarreta, D. "The Effects of Program Models on Language Acquisition by Spanish-Speaking Children," TESOL Quarterly, Vol. 13, No. 4, December, 1979.

Mackey, W. F. "Safeguarding Language in Schools," Language and Society, No. 4, Winter, 1981.

Merino, B., R. Politzer, and A. Ramirez. "The Relationship of Teachers' Spanish Proficiency to Pupils' Achievement." NABE Journal, Vol. 3, Winter, 1979.

Modiano, N. "The Most Effective Language of Instruction for Beginning Reading," in Teaching the Bilingual, F. Pialorsi, ed. Tempe: University of Arizona, 1974.

Penaloza-Stromquist, N. "Teaching Effectiveness and Student Achievement in Reading in Spanish," The Bilingual Review/La Revista Bilingue, Vol. 7, No. 2, May-August, 1980.

Politzer, R. L. "Social Class and Bilingual Education: Issues and Contradictions," Bilingual Education Paper Series, Vol. 5, No. 2. Los Angeles: Evaluation, Dissemination, and Assessment Center, California State University, September, 1981.

Rist, R. C. "Student Social Class and Teacher Expectations: The Self-Fulfilling Prophecy in Ghetto Education," Harvard Educational Review, Vol. 40, August, 1970.

Rodriguez, R. Hunger of Memory, Boston: David R. Godine Pub., Inc., 1982.

Rosier, P., and W. Holm. "The Rock Point Experience: A Longitudinal Study of a Navajo School (Saad Naaki Bee Na'Nitin)," Bilingual Education Series, No. 8. Washington: Center for Applied Linguistics, 1980.

Santiago, M., and E. de Guzman. A Child's Step Forward in Reading: The Effect of Language of Materials and Other Factors on Reading Comprehension Among Grade Four Pupils. Research Series. Manila: Philippine Normal College, 1977.

Skutnabb-Kangas, T. Language in the Process of Cultural Assimilation and Structural Incorporation of Linguistic Minorities. Rosslyn, Va.: National Clearing House for Bilingual Education, 1979.

Slavin, R. E. "Cooperative Learning and Desegregation," Journal of Educational Equity and Leadership, Vol. 1, 1981b.

Slavin, R. E. "Effects of Biracial Learning Teams on Cross-Racial Friendships," Journal of Educational Psychology, Vol. 71, No. 3, 1979.

Slavin, R. E. "Synthesis of Research on Cooperative Learning," Educational Leadership, Alexandria, Va.: Association for Supervision and Curriculum Development, May, 1981a.

St. John, N. H., and R. G. Lewis. "Race and Social Structure of the Elementary Classroom," Sociology of Education, Vol. 48, 1975.

Stevick, E. Memory, Meaning, and Method. Rowley, Mass.: Newbury House Pubs., 1976.

Stevick E. Teaching Languages: A Way and Ways. Rowley, Mass.: Newbury House Pubs., 1980.

Swain, M., and S. Lapkin. Bilingual Education in Ontario: A Decade of Research. Toronto, Ontario: Minister of Education, Ontario, 1981.

Terrell, T. "The Natural Approach in Bilingual Education," in Schooling and Language Minority Students: A Theoretical Framework. Los Angeles: Evaluation, Dissemination, and Assessment Center, California State University, 1981.

Thonis, E. Literacy for America's Spanish-Speaking Children. Newark, N.J.: International Reading Association, 1976.

Thonis, E. "Reading Instruction for Language Minority Students," in Schooling and Language Minority Students: A Theoretical Framework. Los Angeles: Evaluation, Dissemination, and Assessment Center, California State University, 1981.

Toukomaa, P., and T. Skutnabb-Kangas. The Intensive Teaching of the Mother Tongue to Migrant Children of Preschool Age and Children in the Lower Level of Comprehensive School. Helsinki, Finland: Finish National Commission for UNESCO, 1977.

Tucker, G. R. "The Linguistic Perspective," in Bilingual Education: Current Perspectives--Linguistics. Arlington, Va.: Center for Applied Linguistics, 1977.

UNESCO. The Use of Vernacular Languages in Education. Monographs on Fundamental Education, 1953.

U.S. Commission on Civil Rights. Teachers and Students: Differences in Teacher Interaction with Mexican-American and Anglo Students. Washington, D. C., March, 1973.

Wong-Fillmore, L. "Individual Differences in Second Language Acquisition," in Individual Differences in Language Ability and Language Behavior, C. J. Fillmore, D. Kempler, and W. S. Y. Wang, eds. New York: Academic Press, Inc., 1979.

Wong-Fillmore, L. "The Second Time Around: Cognitive and Social Strategies in Second Language Acquisition." Unpublished doctoral dissertation, Stanford University, 1976.

82-20 (4th printing) DE12974 7 83 1M